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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,270	11/01/2005	Marc Lambertus Johannes Vlemmings	NL 030453	5108

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EXAMINER

AKINYEMI, AJIBOLA A

ART UNIT	PAPER NUMBER
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2618

NOTIFICATION DATE	DELIVERY MODE
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04/17/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/555,270	Applicant(s) VLEMMINGS, MARC LAMBERTUS JOHANNES	
	Examiner AJIBOLA AKINYEMI	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/01/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 5-7 are objected to because of the following informalities: "Third mixer and fourth mixer" Since applicant referred to first and second mixer earlier, claims 5-7 should be first and second mixer and not third and fourth mixer. Appropriate correction is required. Examiner relies on his own interpretation for these claims.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Durec (Patent No.: 6144846).

With respect to claim 1:

Durec teaches a receiver for receiving radio frequency comprising oscillating means (fig.1, item 26) for generating a first mixing signal (fig.1, item 20) having a first frequency, a frequency divider (fig.1, item 28) arranged to derive a second mixing signal from the first mixing signal, first mixer (fig.1, item 14A) arranged to down-convert the radio frequency signal (RFin) to a first lower frequency signal using the first mixing signal (fig.1, item 20) and a second mixer (fig.1, item 14B) arranged to down-convert the

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first low frequency signal to a second lower frequency signal (fig.1, item 24) using the second mixing signal (fig.1, item 22) in which a division factor of the frequency divider and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands.

With respect to claim 2:

Durec teaches a receiver comprising a phase shifter (fig.1, item 30) for shifting the phase of the second mixing signal (fig.1, item 22).

With respect to claim 8:

Durec teaches a method comprising generating a first mixing signal (fig.1, item 20) that has a ratio to the center frequency, which ratio is determined by the one of at least two frequency bands, deriving a second mixing signal (fig.1, item 22) from the first mixing signal by using a frequency divider (fig.1, item 28) having a division factor which is determined by the one of at least two frequency bands comprising the center frequency, down-converting the radio frequency signal to a first lower frequency signal using the first mixing signal (fig.1, item 20) and down-converting the first lower frequency signal to a second lower frequency signal using the second mixing signal (fig.1, item 22).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 3 is rejected under 35 U.S.C. 102(e) as being anticipated by Black (Patent No.: US 6678503B1).

With respect to claim 3:

Black teaches a transmitter comprising oscillating means (fig.1, item 20) for generating a second mixing signal having a second frequency, a frequency divider arranged (fig.1, item 22) to derive a first mixing signal from the second mixing signal, a first mixer (fig.1, item 12) arranged to up-convert a lower frequency signal to a higher frequency signal using the first mixing signal and a second mixer (fig1, item 14) arranged to up-convert the higher frequency signal to a radio frequency signal using the first second signal . in which a division factor of the frequency divider and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Durec (Patent No.: 6144846) and further in view of Black (Patent No.: US 6678503B1).

With respect to claim 4:

Durec teaches a receiver for receiving radio frequency comprising oscillating means (fig.1, item 26) for generating a first mixing signal (fig.1, item 20) having a first frequency, a frequency divider (fig.1, item 28) arranged to derive a second mixing signal from the first mixing signal, first mixer (fig.1, item 14A) arranged to down-convert the radio frequency signal (RFin) to a first lower frequency signal using the first mixing signal (fig.1, item 20) and a second mixer (fig.1, item 14B) arranged to down-convert the first low frequency signal to a second lower frequency signal (fig1, item 24) using the second mixing signal (fig.1, item 22) in which a division factor of the frequency divider and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands. Durec differs from claim invention in that transceiver is not mentioned. Black disclosed a transceiver (fig.1) It would have been obvious to one of ordinary skill in the art at the time the invention was made to know that the receiver in Durec invention is part of a wireless transceiver. Modifying Durec with Black invention will help in transmitting and receiving using the same device.

With respect to claim 5:

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Durec teaches a receiver for receiving radio frequency comprising oscillating means (fig.1, item 26) for generating a first mixing signal (fig.1, item 20) having a first frequency, a frequency divider (fig.1, item 28) arranged to derive a second mixing signal from the first mixing signal, first mixer (fig.1, item 14A) arranged to down-convert the radio frequency signal (RFin) to a first lower frequency signal using the first mixing signal (fig.1, item 20) and a second mixer (fig.1, item 14B) arranged to down-convert the first low frequency signal to a second lower frequency signal (fig1, item 24) using the second mixing signal (fig.1, item 22) in which a division factor of the frequency divider and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands. Durec differs from claim invention in that third and fourth mixer on transmitter part is not taught. Black that is in the same field of endeavor teaches a transmitter comprising third mixer (fig.1, item 12) arranged to up-convert a lower frequency signal to a higher frequency signal using a third mixing signal having a third frequency and a fourth mixer (fig.1, item 14) arranged to up-convert the higher frequency signal to the radio frequency signal using a fourth mixing signal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have third and fourth mixer which is on transmitter side together with the first and second mixer on receiver side in order to be able to transmit and receive using the same device.

With respect to claim 6:

Black teaches a transmitter with oscillating means (fig.1, item 20) that is arranged to generate the fourth mixing signal having a third frequency and a second frequency

divider (fig.1, item 22) for deriving the third mixing signal from the fourth mixing signal in which the division factor of the second frequency divider and a second ratio between the second center frequency and the third are determined by one of at least two frequency bands.

With respect to claim 7:

Durec teaches the first mixing signal (fig.1, item 20) and the second mixing signal (fig.1, item 22). It is obvious that the third mixing signal in Black would be equal to first mixing signal in Durec and fourth mixing signal in Black would be equal to second in Durec.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AJIBOLA AKINYEMI whose telephone number is (571)270-1846. The examiner can normally be reached on monday- friday (8.30-5pm) Est. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LANA LE can be reached on (571) 272-7891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business

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Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AA

/L. N. L./

Acting SPE of Art Unit 2618